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ABSTRACT

Evaluation was made of the Wilson School District's oral Spanish and oral English development programs for preschool and first-grade children with limited proficiency in English and/or Spanish. The program consisted of 3 major components: an English Oral Language Program (EOLP) for children using nonstandard English, a Spanish Oral Language Program for non-Spanish-speaking children and for Spanish-surnamed with Spanish oral language deficiencies, and a Spanish Language Arts Program for pupils with a basic structure and phonology in Spanish. In addition, the Initial Teaching Alphabet program was used with a control group of children being exposed to beginning English language development. Evaluations were made of the individual programs (with a varying number of meetings per week) and of the comparative success of the various programs. Analysis of covariance provided consistent indications in support of the EOLP for children with limited proficiency in English. While the Spanish language programs are envisioned as important components of the Wilson Bilingual Program, they do not appear as well-developed as the English-as-a-second-language component. With refinement of the Spanish language component, it is expected that the Wilson program will enhance the bilinguistic and overall academic development of the beginning pupil with limited English and/or Spanish. (AL)

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# AN ANALYSIS AND ASSESSMENT OF ORAL SPANISH AND ORAL ENGLISH DEVELOPMENT AMONG CHILDREN WITH LIMITED PROFICIENCY IN ENGLISH AND/OR SPANISH

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An Evaluation Report

for the

Wilson School District

Bilingual Education Program

Phoenix, Arizona

Prepared by

Dr. Atilano A. Valencia

Southwestern Cooperative Educational Laboratory

June, 1970

R0004432

# PREFACE

The development and installation of the Wilson School District Bilingual/Bicultural Education program is credited to a dedicated and innovative-minded group of educators in the District. Among the Wilson School District personnel who have devoted unlimited time and effort to the project are:

Servando B. Carrillo, Director of Educational Services and Bilingual Project Director

Jack Null, District Superintendent of Schools and former Bilingual Project Director

Theresa Howard, District Curriculum Coordinator and Project Quality Assurance Observer

Virginia Gonzales, Bilingual Education Teacher

Shirley Sullivan, Bilingual Education Teacher

Marsha Klienz, Bilingual Education Teacher

Patricia Martinez, Bilingual Education Teacher

Mary Ann Abril, Bilingual Education Teacher-Aide

Adele Gardner, Bilingual Education Teacher-Aide

Marilyn Herrera, Bilingual Education Teacher-Aide

Carol Lord, Bilingual Education Teacher-Aide

The evaluation of the Wilson School District Bilingual/Bicultural program was based on a team effort by Southwestern Cooperative Educational Laboratory personnel and Wilson School District personnel. Dr. Max Luft and SWCEL Data Management and Processing Department personnel provided services in testing, collecting, and preparing data for the statistical

analysis. The author of this report extended services in composing the original project proposal, in the computer processing of the data, and in interpreting and reporting the statistical findings. It is hoped that this report will serve to enhance further revisions and development of the project, particularly in terms of the recepients of this new educational thrust -- bilingual education.

Dr. Atilano A. Valencia

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## I. DESCRIPTION OF BILINGUAL PROGRAM COMPONENTS

The bilingual program in the Wilson Elementary School District consisted of three major components: (1) an English Oral Language Program (EOLP) for children using nonstandard English, in conjunction with concept formation or reinforcement in the vernacular as needed; (2) A Spanish Oral Language Program (SOLP) for non-Spanish speaking children and for Spanish surnamed pupils with Spanish oral language deficiencies; and (3) a Spanish Language Arts Program (SLAP) involving listening, speaking, reading, writing, and spelling for children with a basic structure and phonology in Spanish.

The English oral language component of the project utilized a program designed and developed by the Southwestern Cooperative Educational Laboratory, Inc. The Spanish oral language component incorporated features of the second language approach developed by the Laboratory. And the Spanish language arts program for Spanish speaking pupils used oral language techniques, as necessary, as well as language content given in written materials published by the Laidlaw Brothers Publishing Company. The Spanish language components of the program, especially the oral language phase, involved project personnel to further develop or modify content, methodology, materials, and media in Spanish for pre-school and first grade non-Spanish speaking and Spanish speaking children.

The SWCEL's Oral Language Program is designed to develop oral and listening skills among non-English speaking pre-school and early element-

ary grade children.* Instructional materials based on lessons originally prepared at UCLA under the direction of Dr. Wilson have been adapted by the Laboratory for application in multicultural settings.

The EOLP is directed at providing non-English speaking youngsters with a fluent, independent speaking ability in English, and with facility in comprehension of spoken English. The kinds of competence in English imparted by the program are considered prerequisite to formal instruction in reading.

The EOLP is designed to be used daily by one teacher with groups of about 10 children, age 5 - 7. Lessons are about 25 minutes in length. The techniques are basically those of a second language approach, modified to meet the learning needs of young children with deficiencies in oral English.

The order in which selected patterns are presented is carefully structured, proceeding in general from short, simple, very high frequency phrases and basic conversational conventions to longer, more intricate patterns. There is emphasis in games involving questions and answers, handling of objects, and other motor activities. Throughout, the teacher models utterances, elicits responses, provides corrective feedback, and reinforces student participation.

Among the components of the EOLP are (1) six notebooks containing 25 lesson plans each, for a total of 147 lessons, with a summary checklist of sentence patterns at the end of each notebook, (2) a separate set of

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*Atilano A. Valencia, "Bilingual/Bicultural Education: A prospective Model in Multicultural America," The Southwestern Cooperative Educational Laboratory, Inc., Albuquerque, New Mexico, April 1969, pp. 19-20.

five "pre-lessons" intended to introduce children by stages to the kinds of behaviors that occur in the lessons, (3) a teacher's manual, (4) a set of drawings designed for use with the lessons, (5) a disc recording of sounds that play a part in the program, (6) six "content" tests to be given by the teacher at appropriate points in the program, (7) sample "cultural heritage" lesson plans, designed to demonstrate the use of language patterns in activities closely related to the ethnic or regional background of the children.

Included in the teacher's manual are sections on the history and scope of the program, the plan of the lessons, the teaching situation, and important teaching techniques. Also, there is a complete master list of materials and a summary of new vocabulary.

Teachers using the SWCEL EOLP are provided with specialized training at demonstration centers run by the Laboratory and cooperating school districts.

The primary goals of SOLP for non-Spanish speaking children and Spanish surnamed pupils with Spanish language deficiencies were:

1. Development and extension of Spanish oral language patterns.
2. Acquistion of an extended oral vocabulary to complement the home-acquired Spanish of Spanish speaking children.
3. Development of readiness for reading and writing of Spanish.
4. Development of a positive attitude toward the usage of Spanish.
5. Affecting an awareness and favorable attitude toward the culture of the child.

The basic approach was to develop and/or refine the oral Spanish language of the child, coupled with a readiness approach to reading and

writing of Spanish. Two noted advantages are apparent among Spanish speaking children: (1) they already possess the basic phonology of the language, and (2) they already have a basic structure and varying degrees of competence in the language.

The Spanish Oral Language Program was a highly innovative approach applied among both Spanish speaking and non-Spanish speaking children in this geographical area. Much was learned from the second language techniques applied by the SWCEL in developing the Spanish language programs; yet, the content, methodology, evaluation techniques, and the material was selected or developed (especially for the Spanish Oral Language component) by the project staff. Special assistance in ascertaining teaching techniques for oral language instructions, advice in conceptualizing and formulating behavioral objectives with lesson content and methodology, and help in determining evaluation procedures was provided by agencies such as the Southwestern Cooperative Educational Laboratory.

The primary general objectives in the Spanish language arts program for children with a basic structure and phonology in the language were:

1. Development of reading skills which enable students to read easily materials designed for native speakers of Spanish (e.g., the Laidlaw Brothers' series).
2. Development of writing skills for self-expression.
3. Acquisition of an extended oral vocabulary to complement the basic home-acquired Spanish language.
4. Development of a positive attitude toward the usage and application of Spanish.
5. Affecting a favorable attitude toward the native culture of the child.

Again, it was expected that the teacher would be able to capitalize on the basic phonology and structure of the language that the Spanish speaking child brings to school. This program was expected to provide particular emphasis to correct speech, reading, and writing with reference to the child's stage of development. New words and concepts were to be introduced daily and developed into sentences for further practice. Spanish reading would be introduced from experience charts and other media, and writing would be developed through a phonic and language experience approach.

The Laidlaw Brothers Publishing Company books were proposed for use in the Spanish language arts program. This represents a series, (Por El Mundo del Cuento y la Aventura), of five basic texts and a vocabulary of approximately 1,000 words. Supplementary materials, visual and audio aids were to be selected or prepared by the teacher and introduce in appropriate sequence.

In the oral language components of the program patterning was used, but not to the extent that it became artificial and unnatural. Initial sentence forms were taught, with the children expanding upon them as soon as possible. Normal conversation was encouraged; thus, teacher creativity was not to be inhibited.

The assignment of pupils to the program was envisioned to be approximately as follows: 20% Anglo-American, 20% Negro, and 60% Spanish surnamed. Pupils met in a heterogeneous setting; however, oral language development in both languages was given in accordance to level of proficiency. A special bilingual instructional center was provided for all the children in the program. Here, in addition to differentiated language arts instruction, pupils were grouped heterogeneously to participate in curricular activities common to the entire population.

## II. EVALUATION DESIGN

### Tests and Criterion Variables

The SWCEL Oral Language Test (an adaptation of the Michaels Test) was used for student placement in the English Oral Language program and as a post-test measure. The test consists of three oral linguistic components:

1. vocabulary
2. pronunciation
3. structure

The Spanish Oral Capacity Test, composed of 18 questions, was used to measure the level of Spanish oral language proficiency. This instrument served as a pre- and post-test measure for children in the Spanish Oral Language Program and the Spanish Language Arts Program.

The Goodenough-Harris-Draw-a-Man Test was used as a measure of mental ability. This test was utilized as a pre-test reference for analyses of covariance in determining group achievement differences in word knowledge, word descrimination, reading, and arithmetic. Measures on these four factors were derived from the Metropolitan Achievement Test.

### Experimental and Control Conditions

The following experimental and control group conditions were considered for analysis:

| Number of Groups | Conditions | n |
|---|---|---|
| 1 | English Oral Language Program (3 meetings per week) | 15 |

| | | |
|---|---|---|
| 1 | English Oral Language Program (5-meetings-per-week) | 15 |
| 1 | Spanish Oral Language Program (3-meetings-per-week) | 14 |
| 1 | Spanish Language Arts Program (5-meetings-per-week) | 10 |
| 1 | Skiff School Contol Group (uses a different program--ITA)* | 27 |

Statistical Analysis Design

The statistical analysis included the following comparisons:

1. A pre-post mean comparison on four criterion variables, using the SWCEL Oral Language Test and analysis of covariance. This was applied on both English OLP groups, as well as the Skiff control group.
2. An analysis of covariance was applied to determine group differences on four criterion variables based on the SWCEL Oral Language Test. This included a comparison between the English OLP, 3-meeting-per-week group with the English OLP, 5-meetings-per-week group; and between the English OLP groups and the Skiff control group.
3. Analysis of covariance also was performed to determine the significant difference between the two Spanish language programs (Spanish OLP and Spanish Language Arts) with the Skiff control group. The Spanish Oral Capacity Test was used as a a measuring instrument.

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*A brief description of the ITA Program is given in Appendix A.

4. Finally, an analysis of variance was undertaken to ascertain the degree of oral Spanish linguistic gain among the children in the two Spanish language programs (Spanish OLP and Spanish Language Arts).

## III. STATISTICAL ANALYSES AND FINDINGS

### Pre-Post Mean Differences on Four Oral English Language Variables

One of the groups in the Wilson Elementary School was provided with the SWCEL Oral Language program three times a week. A second group was given the SWCEL Oral Language program five times a week. And a third group in the Skiff Elementary School was included in the evaluation program. This group, which was provided instruction under another type of program (ITA), was used as the control group.

The SWCEL Oral Language Test was administered prior to program exposures to determine the level of oral English language proficiency among entering first grade children in the Wilson and Skiff experimental and control groups. Placement of children in the English OLP, 3-meetings-per-week group and the English OLP, 5-meetings-per-week group was adjusted in terms of proficiency in oral English, based on the pre-test results.

An analysis of covariance as performed to determine the pre-post test mean gains among the three groups. The four criterion variables measured were vocabulary, pronunciation, structure, and total score. Tables I, II, and III show the statistical findings based on these analyses. Significant gains at the .05 and .01 level of confidence are found in vocabulary, pronunciation, structure, and total score. These gains are found only in the Wilson Elementary experimental groups. The Skiff Elementary group gains were all insignificant at the .05 level of confidence.

The greatest gain among the three variables measured by the SWCEL Test

was in structure. This appears to be among the strongest elements in the SWCEL OLP.

In terms of these findings, it can be concluded that the SWCEL OLP was effective in significantly raising the English oral language proficiency of children in the program, particularly in the area of linguistic structure.

TABLE I

Pre-Post Mean Differences on Four Criterion Variables, Using the SWCEL OLP Test and Analysis of Covariance (English OLP, 3-meetings-per-week)

| n | Criterion Variables | Pre-Post Test Means | St'd Deviation | F Ratio |
|---|---|---|---|---|
| 15<br>15 | Vocabulary | 20.00<br>22.87 | 3.162<br>.805 | 10.80** |
| 15<br>15 | Pronunciation | 27.60<br>29.00 | 2.89<br>1.79 | 2.37 (NS) |
| 15<br>15 | Structure | 71.67<br>104.60 | 20.27<br>17.20 | 21.49** |
| 15<br>15 | Total Score | 120.80<br>157.00 | 21.70<br>17.50 | 24.65** |

Two asterisks denote significant difference at the .01 level of confidence.

The symbol (NS) denotes no significant difference at the .05 level of confidence.

TABLE II

Pre-Post Mean Differences on Four Criterion Variables, Using the SWCEL OLP Test and Analysis of Covariance (English OLP, 5-meetings-per-week)

| n | Criterion Variables | Pre-Post Test Means | St'd Deviation | F Ratio |
|---|---|---|---|---|
| 15<br>15 | Vocabulary | 18.13<br>21.87 | 4.35<br>1.50 | 9.21** |
| 15<br>15 | Pronunciation | 27.00<br>28.80 | 2.39<br>2.23 | 4.24* |
| 15<br>15 | Structure | 75.00<br>101.33 | 13.34<br>12.34 | 29.39** |
| 15<br>15 | Total Score | 121.87<br>153.47 | 18.61<br>13.22 | 26.81** |

One asterisk denotes significant difference at .05 level of confidence.

Two asterisks denote significant difference at the .01 level of confidence.

TABLE III

Pre-Post Mean Differences Based on Four Criterion Variables, Using the SWCEL OLP Test and Analysis of Covariance (Skiff Control Group)

| n | Criterion Variable | Pre-Post Test Means | St'd Deviation | F Ratio |
|---|---|---|---|---|
| 27<br>27 | Vocabulary | 21.15<br>21.67 | 2.05<br>1.85 | .91(NS) |
| 27<br>27 | Pronunciation | 26.44<br>27.22 | 3.35<br>2.22 | .97(NS) |
| 27<br>27 | Structure | 78.37<br>90.44 | 22.25<br>26.94 | 3.10(NS) |
| 27<br>27 | Total Score | 127.48<br>141.07 | 24.85<br>27.92 | 3.43(NS) |

The symbol (NS) denotes no significant difference at the .05 level of confidence.

Group Mean Differences on Four Oral English Language Variables

Five analyses were performed to ascertain significant group differences on three oral English linguistic variables (vocabulary, pronunciation, and structure).

First, the English Oral Language Program,* 3-meetings-per-week group was compared with the EOLP, 5-meetings-per-week group. Table IV shows the results of this comparison. Only a very small difference is indicated in favor of the 3-meetings-per-week group. This occurs only in the area of vocabulary. Overall, however, the findings show no significant differences between the groups at the .05 level of confidence.

It is noted that the rationale for differentiating between the two (EOLP) groups in frequency of meetings was based on the higher scores of children placed in the 3-meetings-per-week group. This proved to be an advantageous arrangement, for greater English linguistic emphasis was given to children who needed it most.

Comparative analyses were performed to ascertain significant group differences between the EOLP, 3-meeting-per-week group and the Skiff control group. Table V shows significant differences in favor of the SWCEL OLP in the areas of vocabulary and pronunciation. These differences are given at the .05 level of confidence. A similar trend is noted in comparing the SWCEL OLP, 5-meetings-per-week group with the Skiff control group. However, here the significant difference occurs only in the area of

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*In this study, the abbreviation EOLP is used interchangeably with English Oral Language Program.

pronunciation. Nevertheless, the overall results from these analyses provide a favorable indication for the continuation of an English OLP component in the District.

TABLE IV

Group Differences on Four Criterion Variables
Based on the SWCEL Oral Language Test,
Using Analysis of Covariance
(EOLP, 3-meetings-per-week compared with EOLP, 5-meetings-per-week)

| Criterion Variable | n | Groups | Pre-Test Means | Post-Test Means | Adjusted Post-Test Means | St'd Deviation | R Ratio |
|---|---|---|---|---|---|---|---|
| Vocabulary | 15 | EOLP-3 | 20.00 | 22.87 | 22.76 | .806 | 3.13(NS) |
| | 15 | EOLP-5 | 18.13 | 21.87 | 21.97 | 1.50 | |
| Pronunciation | 15 | EOLP-3 | 27.60 | 29.00 | 28.97 | 1.79 | .036(NS) |
| | 15 | EOLP-5 | 27.00 | 28.80 | 28.83 | 2.39 | |
| Structure | 15 | EOLP-3 | 71.67 | 104.60 | 104.77 | 17.20 | .40(NS) |
| | 15 | EOLP-5 | 75.00 | 101.33 | 101.16 | 12.34 | |
| Total Score | 15 | EOLP-3 | 120.00 | 157.80 | 157.86 | 17.50 | .57(NS) |
| | 15 | EOLP-5 | 121.00 | 153.47 | 153.40 | 13.22 | |

The symbol (NS) denotes no significant difference at the .05 level of confidence.

TABLE V

Group Mean Differences on Four Criterion Variables Based on the SWCEL OLP Test, Using Analysis of Covariance (EOLP, 3-meetings-per-week compared with Skiff Control Group)

| Criterion Variables | n | Groups | Pre-Test Mean | Post-Test Mean | Adjusted Post-Test Mean | St'd Deviation | F Ratio |
|---|---|---|---|---|---|---|---|
| Vocabulary | 15 | Experi-mental | 20.00 | 22.87 | 22.96 | .80 | 6.66* |
| | 27 | Control | 21.15 | 21.67 | 21.61 | 1.80 | |
| Pronunciation | 15 | Experi-mental | 27.60 | 29.00 | 28.76 | 1.79 | 5.30* |
| | 27 | Control | 26.44 | 27.22 | 27.35 | 2.22 | |
| Structure | 15 | Experi-mental | 71.67 | 104.60 | 105.04 | 17.20 | .30(NS) |
| | 27 | Control | 78.37 | 90.44 | 90.20 | 26.94 | |
| Total Score | 15 | Experi-mental | 120.80 | 157.80 | 158.19 | 17.50 | 4.36* |
| | 27 | Control | 127.48 | 141.07 | 140.86 | 29.92 | |

One asterisk denotes significant difference at .05 level of confidence.

The symbol (NS) denotes no significant difference at the .05 level of confidence.

TABLE VI

Group Mean Differences on Four Criterion Variables
Based on the SWCEL OLP Test,
Using Analysis of Covariance
(EOLP, 5-meetings-per-week Compared with Skiff Control)

| Criterion Variables | n | Groups | Pre-Test Means | Post-Test Means | Adjusted Post-Test Means | St'd Deviation | F Ratio |
|---|---|---|---|---|---|---|---|
| Vocabulary | 15 | Experimental | 18.13 | 21.87 | 22.37 | 1.50 | 2.98 (NS) |
| | 27 | Control | 21.15 | 21.67 | 21.39 | 1.84 | |
| Pronunciation | 15 | Experimental | 27.00 | 28.00 | 28.71 | 2.23 | 4.22* |
| | 27 | Control | 26.44 | 27.22 | 27.27 | 2.22 | |
| Structure | 15 | Experimental | 75.00 | 101.33 | 101.64 | 12.34 | 2.24 (NS) |
| | 27 | Control | 78.37 | 90.44 | 90.27 | 26.94 | |
| Total Score | 15 | Experimental | 121.87 | 153.47 | 153.80 | 13.22 | 2.64 (NS) |
| | 27 | Control | 127.48 | 141.07 | 140.88 | 27.92 | |

One asterisk denotes significant difference at .05 level of confidence.

The symbol (NS) denotes no significant difference at the .05 level of confidence.

Group Mean Differences on Four Criterion Variables Based on the Metropolitan Achievement Test

Four comparative analyses were undertaken to determine group differences on four achievement factors, based on the Metropolitan Achievement Test. The Goodenough-Draw-a-Man Test was administered to the children in all of the experimental and control groups. The scores from the Goodenough-Draw-a-Man Test served as a covariate in the statistical analyses of the four criterion variables.

Without pre-test scores based on the Metropolitan Achievement Test, a highly correlated pre-post test comparison is not possible. Where two different instruments are used in the pre- and post-test conditions much is dependent on the correlation coefficient between the tests. The SWCEL has found the correlation between the Goodenough-Draw-a-Man Test and the Metropolitan Achievement Test to be approximately .60, based on the Pearson r. Although this correlation measure gives some degree of comparison, it may be insufficiently high--depending on the variables and conditions given in the experiment.

Based on the foregoing analogy, the observations and interpretations of the findings revealed in Tables VII and VIII are principally in terms of a post-test comparison.

It is noteworthy that the Skiff control group scored significantly higher (.05 or .01 level of confidence) than both the EOLP, 3-meetings-per-week group and the EOLP, 5-meetings-per-week group.

In terms of the foregoing analyses, two conclusions are possible: The EOLP groups measured lower on all of the Metropolitan Achievement Test

variables in the beginning and, therefore, scored lower than the Skiff control group on the post-test; or the overall instructional program provided for the Skiff control group proved more effective in developing the aforementioned factors (word knowledge, word discrimination, reading, and arithmetic) than the total program provided for the Wilson EOLP groups. Without pre-test data based on the Metropolitan Achievement Test, the latter conclusion cannot be unequivocably drawn. The Goodenough-Draw-a-Man Test data provide some evidence on group equivalency on the general intelligence factor; however, data on ethnic and other socioeconomic factors have not been truly considered. There is, however, one selective factor that is noteworthy in this study. The selection of students for EOLP instruction was principally based on need for oral English language development. Nevertheless, a strong statistical trend in favor of the Skiff control, based on the Metropolitan Achievement post-test scores, is apparent. For this reason it is recommened that further observations and/or testing be conducted to identify variables that account for the differences (on the given Metropolitan Test factors) between the Skiff control group and the Wilson experimental groups.

TABLE VII

Group Mean Differences on Four Criterion Variables
Based on the Metropolitan Achievement Test
(EOLP, 3-Meetings-Per-Week Compared with Skiff Control)

| Criterion Variables | n | Groups | Pre-Test Means | Post-Test Means | Adjusted Post-Test Means | St'd Deviation | F Ratio |
|---|---|---|---|---|---|---|---|
| Word Knowledge | 12 | Experi-mental | 83.08 | 11.75 | 11.62 | 5.48 | 56.06** |
| | 33 | Control | 87.52 | 27.64 | 27.68 | 6.27 | |
| Word Discrimination | 12 | Experi-mental | 83.08 | 12.42 | 12.38 | 4.92 | 92.08** |
| | 33 | Control | 87.51 | 28.57 | 28.59 | 4.71 | |
| Reading | 12 | Experi-mental | 83.09 | 14.08 | 14.19 | 4.15 | 8.70** |
| | 33 | Control | 87.51 | 20.27 | 20.23 | 6.28 | |
| Arithmetic | 12 | Experi-mental | 83.08 | 31.58 | 32.38 | 14.88 | 6.03* |
| | 33 | Control | 87.51 | 87.51 | 42.82 | 10.70 | |

One asterisk denotes significant difference at .05 level of confidence.

Two asterisks denote significant difference at the .01 level of confidence.

TABLE VIII

Group Means on Four Criterion Variables
Based on the Mertropolitan Achievement Test
(EOLP, 5-Meetings-Per-Week Compared With Skiff Control)

| Criterion Variables | n | Groups | Pre-Test Means | Post-Test Means | Adjusted Post-Test Means | St'd Deviation | F Ratio |
|---|---|---|---|---|---|---|---|
| Word Knowledge | 8 | Experi-mental | 87.62 | 9.50 | 9.50 | 1.73 | 61.35** |
| | 33 | Control | 87.51 | 27.64 | 27.63 | 6.26 | |
| Word Discrimination | 8 | Experi-mental | 87.62 | 9.50 | 9.50 | 3.04 | 110.60** |
| | 33 | Control | 87.51 | 28.57 | 28.57 | 4.71 | |
| Reading | 8 | Experi-mental | 87.62 | 11.75 | 11.75 | 5.33 | 11.69** |
| | 33 | Control | 87.51 | 20.27 | 20.27 | 6.28 | |
| Arithmetic | 8 | Experi-mental | 87.62 | 25.50 | 25.49 | 10.94 | 15.62** |
| | 33 | Contol | 87.51 | 42.82 | 42.42 | 10.70 | |

Two asterisks denote significant difference in the .01 level of confidence.

Group Mean Differences on Spanish Oral Language Proficiency

Several analyses were performed to determine the pre- and post-test Spanish oral language proficiency of children in the Spanish linguistic programs and the Skiff control group.

The Spanish Oral Capacity Test, an adaptation of a test used for non-English speaking children by the Texas Technological University Pre-School Screening Service, was used as a pre-test measure of Spanish oral linguistic ability.* A sample copy of this test is provided in Appendix B. While this test serves adequately as a pre-test measure, its appropriateness as a post-test measure is questionable. Mrs. Ida Carrillo, who applied some translation of the original test, envisions it primarily as a pre-test measure. The content of the test tends to support this contention.

Because of the unavailability of relevant instruments to measure Spanish linguistic ability in the early school grades, this instrument was used as a pre- and post-test measure in this study. The shortcomings of the instrument are clearly apparent in attempting to interpret the test results. Therefore, the following observations and interpretations can only serve as tentative indications.

Table IX gives comparative data on oral Spanish language proficiency between the Spanish Oral Language Program,* 3-Meetings-Per-Week group

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*Translations of the original test were applied by Ida Carrillo, Southwestern Cooperative Educational Laboratory, Inc., 1969.

*In this study, the abbreviation "SOLP" is used interchangeably with Spanish Oral Language Program.

and Skiff group. Two variables were observed and analyzed. The first analysis shows a comparison of means on the average number of correct responses given by children in the two groups, and the second analysis provides a comparison of means on the average number of questions asked (irrespective of correct responses) by the testor. The latter variable pertains to the extent that children in each group, on the average, tended to respond to questions before experiencing notable frustrations with the test questions. Data on the latter variable are not as objectively based as on the first, for this reason it has been simply indicated in the statistical tables without further elaboration.

The data in Table IX clearly shows insignificant differences on the post-test means between the SOLP, 3-Meetings-Per-Week and the Skiff control group. A secondary analysis also was given to determine the significant difference between the two groups on the pre-test results. The difference between the two groups on the pre-test data also was insignificant.

Based on the Spanish Oral Capacity Test, the children (on the average) in the experimental SOLP groups did not score significantly higher as compared to Skiff control group. Therefore, it is conceivable that either the instrument failed to measure the linguistic elements learned in the SOLP, or Spanish oral linguistic gains by children in the program were relatively low.

TABLE 1X

Group Mean Differences on Spanish Oral Language Proficiency Based on the Spanish Oral Capacity Test (SOLP, 3-Meetings-Per-Week Compared with Skiff Control)

| Criterion Variables | n | Group | Pre-test Mean | Post-test Mean | Adjusted Post-test Mean | St'd Deviation | F Ratio |
|---|---|---|---|---|---|---|---|
| Correct Responses | 14 | Experimental | 5.07 | 7.29 | 5.96 | 6.63 | .702 (NS) |
| | 28 | Control | 2.82 | 4.29 | 4.95 | 5.16 | |
| Total Questions Asked | 14 | Experimental | 19.64 | 17.71 | 15.69 | 12.57 | 1.53 (NS) |
| | 28 | Control | 16.29 | 17.50 | 18.51 | 13.19 | |

The symbol (NS) denotes no significant difference at the .05 level of confidence.

Two other analyses were performed to determine the mean differences in Spanish Oral Language proficiency between children in the Spanish Language Arts Program and the Skiff control group. Table X shows the comparative difference between the experimental and control group.

Here, the limitations of the Spanish Oral Capacity Test are clearly apparent. Since this test simply measures Spanish oral language proficiency, it does not provide a measure of other language skills. Therefore, the observations and interpretations, based on this instrument, are basically tentative; yet, some indications are found that support the conclusions and recommendations in this report.

The statistical data clearly reveal that the experimental group scored significantly higher on the pre- and post-tests as compared to the Skiff control group. Based on an analysis of variance, the group differences on the correct response category are clearly beyond the .01 level of confidence. The significant difference in terms of an analysis of covariance does not indicate this degree of difference. Due to the extreme variance between the experimental and control group mean scores, the mean adjustment affected by an analysis of covariance was exceedingly high on the experimental group. Thus, the difference between the experimental and control group, in this particular analysis, can be more realistically observed and interpreted on the basis of an analysis of variance.

Furthermore,the variances (Standard Deviations) for the control group are considerably greater than that of the experimental group. This clearly shows greater homogeneity on this linguistic variable among children in the experimental group. This factor is indicative of excellent placement of children in the Spanish Language Arts Program.

The statistical data show high Spanish oral language scores for the Spanish Language Arts group, based on the Spanish Oral Capacity Test. Since it does not provide achievement scores on other Spanish language skills, another test is needed to effectively measure other linguistic components. In this study, a comparison between the experimental and control group was possible only on the oral language component.

One noteworthy observation can be drawn from the foregoing data. The high level of beginning Spanish linguistic ability found among the children in the District clearly reflects a need for a Spanish language component in the elementary school curriculum. This District appears to have a "natural base" for the continuous development of bilingual children (children who will be highly fluent in Spanish and English).

TABLE X

Group Mean Differences on Spanish Oral Language Proficiency Based on the Spanish Oral Capacity Test (Spanish Language Arts Program, 5-Meetings-Per-Week Compared with Skiff Control Group)

| Criterion Variables | n | Groups | Pre-Test Mean | Post-Test Mean | Adjusted Post-Test Mean | St'd Deviation | Anal. of Var. F-Ratio | Anal. of Covar. F-Ratio |
|---|---|---|---|---|---|---|---|---|
| Correct Responses | 10 | Experi-mental | 21.80 | 25.10 | 12.00 | 3.62 | 131.10** | 1.13(NS) |
| | 28 | Control | 2.82 | 4.29 | 8.97 | 5.16 | | |
| Total Questions Asked | 10 | Experi-mental | 30.70 | 30.00 | 20.09 | 1.18 | 8.48** | .121(NS) |
| | 28 | Control | 16.29 | 17.50 | 21.04 | 13.19 | | |

The symbol (NS) denotes no significant difference at the .05 level of confidence.

Spanish Oral Language Gains

Two additional analyses were undertaken to indicate degree of gain (pre-versus post) in Spanish oral language among children in the Spanish Oral Language Program and the Spanish Language Arts Program. These analyses were based on data obtained from scores on the Spanish Oral Capacity Test. In terms of this instrument, no significant gains (pre- versus post) were found in either experimental group.

Several conclusions can be drawn from the findings. While the Spanish Oral Capacity Test does not provide a measure of various linguistic components, it does give a quantitative measure of oral language proficiency. In terms of this linguistic component and the measuring instrument, the Spanish OLP group did not gain significantly on the pre- post-test comparison.

The Spanish Language Arts group, on the average, scored exceedingly high (pre- and post-test) on the Spanish Oral Capacity Test. However, the statistical data does not indicate a significant gain for this group on the pre- versus post-test comparison. But it is conceivable that the high pre-test mean affected the quantitative gains possible in terms of the measuring device.

It is highly suggested that instruments be designed to measure the Spanish linguistic abilities of the children in the Spanish Oral Language and Spanish Language Arts Programs. The Spanish language arts instrument must be more advanced than one designed to measure only oral language proficiency. It also is suggested that program components (objectives, content, and methodology) be examined for possible revision and expansion.

TABLE XI

Pre-Post Mean Comparison on Spanish Oral Language Based on the Spanish Oral Capacity Test (Spanish OLP, 3-Meetings-Per-Week)

| Criterion Variables | n | Pre-Post Test Means | Std'd Deviation | F Ratio |
|---|---|---|---|---|
| Correct Responses | 34<br>34 | 3.67<br>7.29 | 6.60<br>6.63 | .72 (NS) |
| Total Questions Asked | 34<br>34 | 19.64<br>17.71 | 12.37<br>12.13 | .13 (NS) |

The symbol (NS) denotes no significant difference at the .05 level of confidence.

TABLE XII

Pre-Post Mean Comparison on Spanish Oral Language Based on the Spanish Oral Capacity Test (Spanish Language Arts Program, 5-Meetings-Per-Week)

| Criterion Variables | n | Pre-Post Test Means | St'd Deviation | F Ratio |
|---|---|---|---|---|
| Correct Responses | 10<br>10 | 21.80<br>25.10 | 3.03<br>3.62 | 4.40 (NS) |
| Total Questions Asked | 10<br>10 | 30.70<br>30.70 | 0.90<br>1.18 | 1.99 (NS) |

The symbol (NS) denotes no significant difference at the .05 level of confidence.

# IV CONCLUSIONS AND RECOMMENDATIONS

The statistical findings provided consistent indications in support of the English Oral Language Program. The data clearly show comparative and significant gains in favor of the program in English vocabulary, pronunciation, and language structure. The SWCEL OLP, or a similar program, is highly recommended for first grade or pre-school children with little or no proficiency in oral English.

The findings reveal significant differences between the groups in the EOLP experimental groups and the Skiff control group on factors measured by the Metropolitan Achievement Test. The four elements measured by the Test were word knowledge, word discrimination, reading, and arithmetic. The significant differences on these achievement factors were in favor of the Skiff control group.

However, it was noted that, without pre-test data based on a similar test, the program advantages in one school cannot be unequivocably compared with another. The Goodenough-Draw-a-Man Test data provided some evidence of group equivalency on the general intelligence factor; yet, data on ethnic and other socioeconomic factors was unavailable for further comparisons. There is, however, one selective factor that is noteworthy in this study. The selection of students for EOLP instruction was principally based on need for oral English development. Nevertheless, a strong trend in favor of the Skiff control group, based on Metropolitan Achievement Test scores, is apparent. For this reason, it is recommended that further testing be conducted to establish greater validity to the findings, and to identify variables that account for the differences

between the Skiff control group and the Wilson school groups on the aforementioned factors. These findings can have important implications on future curricular and instructional revision throughout the District.

Based on the Spanish Oral Capacity Test, the children in the Spanish oral language groups did not gain or score significantly higher as compared to the Skiff control group. Therefore, it is conceivable that either the instrument failed to measure the linguistic elements learned in the Spanish Oral Language Program, or Spanish oral linguistic gains were relatively low.

The statistical findings show that Spanish Language Arts children scored significantly higher than control group children on both pre- and post-test measures. While these data show Spanish oral linguistic ability for the experimental group in terms of the Spanish Oral Capacity Test, it does not provide achievement scores on other linguistic components. Therefore, it is recommended that a Spanish language arts test be designed to specifically measure the various Spanish linguistic elements emphasized in the program.

The analysis of the Spanish Oral Capacity Test results (pre- versus post) indicated no significant gains for the Spanish OLP and the Spanish Language Arts groups. Several conclusions and recommendations can be drawn from these findings. While the Spanish Oral Capacity Test does not measure various Spanish linguistic components, it does provide some measure of oral linguistic development. In terms of this linguistic component, and the measuring instrument, it is observed that the Spanish OLP group did not improve significantly on the pre- versus post-test comparison.

The Spanish Language Arts group scored exceedingly high on the pre- and post-test instrument; yet, the statistical analysis does not show a significant pre-post test gain for this group in oral language. However, it is conceivable that the high pre-test mean affected the quantitative gain possible on the given instrument.

Again, it is highly recommended that instruments be designed to measure the Spanish linguistic abilities of the children in the Spanish Oral Language and Spanish Language Arts programs. The Spanish Language Arts instrument should be more advanced and must incorporate various linguistic components as compared to an instrument designed to measure only oral language proficiency.

Because of the representation of children with a Spanish-speaking background in the District, it is highly recommended that the two Spanish language programs be carefully examined to determine ways to enhance their expansion and development.

The terms self-image and cultural image must be explicitly defined in behavioral terms. Instruments for measuring attitudes relative to these two affective components are needed. The author of this report has designed a "Cultural Sensitivity" instrument that provides a quantitative measure of attitudes toward the child's own culture as well as other cultures. This instrument has been field tested and has proved to be an effective measuring device. Other instruments that attempt to measure positive or negative dimensions relative to self-image are being developed and tested by other agencies. These, then, can be made available for application in the second year's evaluation scheme. While attitudinal measures were not incorporated in this evaluation report due to the unavailability of

relevant instruments and the cost and time needed to develop them, these types of measures should be included in subsequent evaluations of the program.

Overall, the evaluation reveals an advantageous English oral language program for children with limited proficiency in English. While the Spanish language programs are envisioned as important components of the Wilson Bilingual Program, they do not appear as well developed as the English-as-a-second language component. With greater attention to the refinement of the Spanish language component, it is expected that the Wilson Bilingual Program will increasingly enhance the bi-linguistic and overall academic development of the beginning pupil with limited English and/or Spanish communication ability.

## Appendix A: The ITA Program

The ITA (Initial Teaching Alphabet) program introduces 44 phonetic symbols to the child being exposed to beginning English language development. Specifically, these phonetic symbols have been selected in terms of the most common English sounds needed in the learning of English. Emphasis is placed on a one-to-one relationship between sound and symbol. Additionally, the stress is in providing a sound foundation for reading development.

The foregoing is a very "sketchy" description of the program. Further information about the program is available from school districts, such as the Wilson School District, that are presently utilizing the program.

Appendix B: Sample Copy of the Spanish
Oral Capacity Test

SPANISH ORAL CAPACITY TEST *

Instrucciones:

Note que se necesitan retratos para las preguntas Número 11. Para la pregunta Número 18, se necesita demonstrar.

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Nombre del discípulo _____ Escuela _____

Grado_____Cinta _____ Contador _____

EXPERIMENTAL/CONTROL

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Pregunta

1. ¿Cómo te llamas?
2. ¿Eres muchacho o muchacha?
3. ¿Dónde vives?
4. ¿Cómo se llama tu papá?
5. ¿Cómo se llama tu mamá?
6. ¿Tienes hermanos?
7. ¿Tienes hermanas?

   ¿Cómo se llaman tus hermanas?
   ¿Cómo se llaman tus hermanos?
8. ¿Cuantos años tienes?
9. ¿Qué es esto? (Apunte y toque un articulo de ropa.)

   ¿Qué color es?
10. Por favor, cuenta a diez. (Que cuente lo que puenda.)

11. ¿Qué es ésto?

(enseñe retratos de cada cosa)

| | | | |
|---|---|---|---|
| (a) | perro | (f) | árbol |
| (b) | gato | (g) | vaca |
| (c) | pájaro | (h) | caballo |
| (d) | silla | (i) | tren |
| (e) | niño | (j) | elefante |

12. ¿Qué haces en la escuela?

13. ¿Qué hace tu papa?

¿Donde?

14. ¿Qué hace tu mama?

15. ¿Qué te gusta jugar?

16. ¿Qué miras en la television?

17. ¿Qué comiste hoy?

18. ¿Qué estoy haciendo? (Preguntele cuando este haciendo cada accion.)

(a) Parándose

(b) Sentándose

*Adapted from a Texas Educational Agency, 1961 adaptation of the Texas Technological University Pre-School Screening Service of Non-English Speaking Children produced under the auspices of the Texas Education Agency. Translation for use with Spanish speaking children as a Spanish Capacity Test done by Ida S. Carrillo, South Western Cooperative Educational Laboratory, 1969.